WHAT IS CLAIMED IS:

1. A method for detecting an anatomic structure based on a medical diagnostic imaging data set, comprising:

obtaining a data set representative of a diagnostic image corresponding to an anatomic structure;

identifying at least one anatomic landmark within said data set;

overlaying said data set with a contour template; and

analyzing a search region of said data set surrounding said contour template to identify transition points associated with a predefined characteristic of the anatomic structure.

2. The method of claim 1, further comprising defining contours for a series of images based on said contour template and said transition points and comparing said contours for adjacent images.

3. The method of claim 1, wherein said predefined characteristic of the anatomic structure is an interior edge of a chamber of the heart.

4. The method of claim 1, wherein said predefined characteristic of the anatomic structure is a wall of a chamber of the heart.

5. The method of claim 1, further comprising defining a series of paths traversing said contour template, along which said analyzing is performed.

6. The method of claim 1, further comprising defining a series of paths orthogonal to said contour template and searching for candidate transition points along said paths.

7. The method of claim 1, further comprising scoring candidate transition points within said search region based on at least one of a change in brightness, a

smooth spatial transition between adjacent transition points in a diagnostic image, and a smooth temporal transition between corresponding transition points in other diagnostic images.

8. The method of claim 1, further comprising selecting a path through candidate transition points in said search region based on transition smoothness.

9. The method of claim 1, wherein said contour template estimates an outline of anatomic structure.

10. The method of claim 1, wherein said obtaining includes performing at least one of an ultrasound, CT, PET, SPECT, Gamma Camera, X-ray, and MR scan of an anatomy of interest.

11. The method of claim 1, wherein said obtaining includes loading a previously acquired data set.

12. The method of claim 1, wherein said anatomic structure constitutes the endocardium and said anatomic landmark constitutes at least one of a ventricle apex, a plane separating an atrium and ventricle, and a cardiac valve.

13. A system for identifying an endocardium, comprising:

a transmitter for transmitting ultrasound signals into an area of interest;

a receiver for receiving echo signals from transmitted ultrasound signals;

a memory for storing a series of image frames comprising said echo signals, said series of image frames comprising at least one heart cycle;

a signal processor processing said series of image frames to identify at least one of an apex and an AV plane having first and second ends, said signal processor overlaying a contour template connecting said apex to said first and second ends on said series of image frames, said signal processor identifying and comparing points

along said contour template to identify transition points based upon a predefined characteristic of an endocardium; and

an output for outputting information based on an output of said signal processor.

14. The system of claim 13, further comprising said signal processor defining paths transverse to said contour template, said paths intersecting said points, said signal processor defining at least two candidate points along each said path and comparing said at least two candidate points to each other with respect to said predefined characteristic.

15. The system of claim 13, further comprising a user input for adjusting at least one of said apex and said first and second ends of said AV plane.

16. The system of claim 13, further comprising said signal processor comparing said transition points in adjacent image frames within said series of image frames, said signal processor moving at least one said transition point in a first adjacent image frame based upon at least one transition point in at least one adjacent image frame.

17. A method for identifying at least one of a contour between different types of tissue and a contour between tissue and blood, said method comprising:

obtaining a series of data sets representative of a diagnostic image having at least two different types of tissue;

identifying at least two anatomic landmarks within said series of data sets;

connecting said at least two anatomic landmarks with a contour template;

identifying data points on and around said contour template; and

comparing said data points to identify transition points having a predefined characteristic indicative of a change from one type of tissue to one of a second type of tissue and blood.

18. The method of claim 17, further comprising:

identifying multiple corresponding transition points on adjacent data sets within said series of data sets; and

adjusting a location of a corresponding transition point based upon an average of said multiple corresponding transition points.

19. The method of claim 17, further comprising:

said identifying data points further comprising defining paths being transverse with respect to said contour template, said data points being identified along said paths;

said comparing further comprising comparing said data points located along multiple said paths; and

adjusting a location of at least one said transition point based upon an output of said comparing.

20. The method of claim 17, further comprising:

said identifying data points further comprising defining paths being transverse with respect to said contour template, said data points being identified along said paths;

said comparing further comprising comparing said data points located along the same said path; and

assigning a score to each said data point based on an output of said comparing.

21. The method of claim 17, further comprising:

said identifying data points further comprising defining paths being transverse with respect to said contour template, said data points being identified along said paths;

said comparing further comprising comparing said data points located along a first set of adjacent paths;

adjusting a location of at least one said transition point based upon an output of said comparing; and

said comparing further comprising comparing said data points located along a second set of adjacent paths, said first and second sets comprising at least one common path, said data points including at least one said transition point previously adjusted.